IFC: Competition and Productivity: Fostering Private Sector Growth

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Setting the stage

- Topic of conversation among academics, business and policy makers: the state of competition, and in particular the rise of profits, margins and industry-concentration.
- At first US-based conversation on industry concentration (HHI), markups, profit share; and the link to:
  - labor markets (labor share),
  - innovation & investment,
  - ownership, M&A.
- Recent evidence seems to point to similar trends in Europe (perhaps less stark); although different in (some) LDCs.

Increasing ratio:

- Increasing margins, corporate profits and nation-wide firm concentration (caveat HHI!).
- Robust fact of weighted ratio:

$$\frac{\text{sales}}{\text{expenditure variable input}}$$

- Rising fixed cost and fattening of the firm-size distribution,
- Reallocation of economic activity towards high margin firms (although interesting patterns across countries).
- Profits share on the rise.
- Lowering of business dynamism (entry margins and worker flows).
- Impact on factor markets: labor.

Against all this

- Rising M&A activity,
- Deepening of global value chains,
- Trade liberalization and catching up of manufacturing sector in China and others.

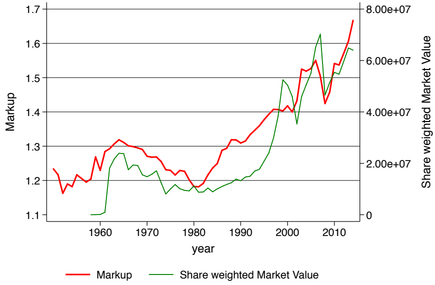
Taking stock

Decrease in pass-through of costs

1. Globalization:
   - increase of market size,
   - lowering of input prices, and threat-point,
   - required fixed cost of setting this up: selects more productive firms (natural pos association).
   - Importance and fragility of global value chains.
2. Technology (towards fixed costs and scale).
3. Notable declining business dynamism:
   3.1 entry margin,
   3.2 labor transitions across firms across markets.
4. Sometimes forgotten: Outcome of performance and HQ facts!

A pause on measurement

- IO economists offer a range of tools to handle the perceived *there is no reliable (marginal) cost data*.
- Now we have alternatives to use both product market data on consumer-level transactions, and rich cost and production data.
- However, we should not forget to ground these with measures used in actual decisions in markets, e.g. how does market cap relate to measure of markups in the US Compustat data?



Ongoing research

- Welfare implications: mapping markups to market power is model dependent (e.g. innovation, fixed costs).
- Role of technology (investment in networks broadly defined, either distribution Walmart or fulfillment centers in Amazon), fixed cost and slow diffusion.
- Potential sources:
  1. globalization,
  2. technology,
  3. competition policy (broadly defined).

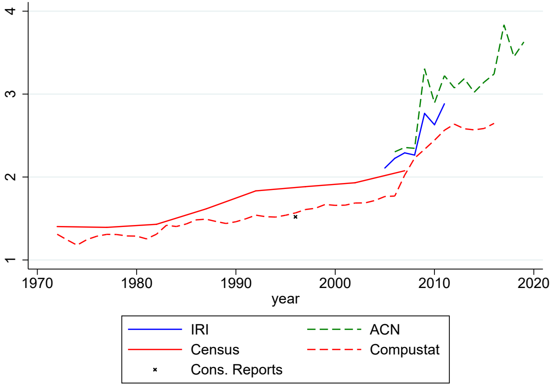
Approaches

- **Micro-approach**: traditional approach (perhaps) of a single industry, case-study:
  1. Market-level demand-conduct approach,
  2. Producer-level production approach.
- **Macro-approach**: interface of IO with macro-labor inherently GE effects or aggregate effects.

  Obvious tension between both (e.g. HHI debate) but both are crucial in improving our understanding.

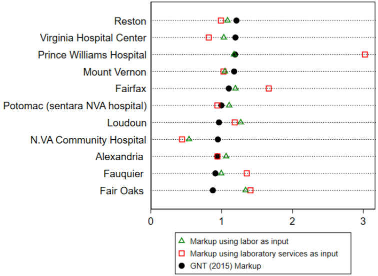
Micro approaches: M&A and adv. (1)

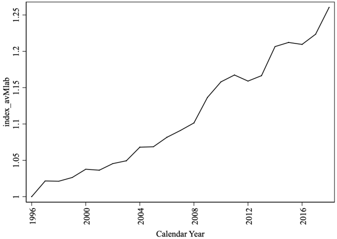
- **US beer industry**
- Rising markups under rising production and advertising concentration.
- Vertical structure key in matching markups across methods (conduct approach).



Micro approaches: mergers (2)

- **US hospital industry**
- Rising markups (15%) of which mergers can explain about 3%.
- Agreement demand-conduct and production approach.





Micro approaches: trade and technology (3)

1. **Technology**: US steel industry with mini-mill introduction, reallocation towards new technology (more productive) with declining margins. Pro-competitive force
2. **Globalization**: Drastic Indian trade reforms introduce massive tariff changes acting as simultaneous product-market competitive and cost shocks: overall input tariffs lower with incomplete pass-through, leading to higher margins. Pro-competitive force combined with input price reductions!

Schumpeter revisited

- To focus ideas, use a simple decomposition of performance (π)

$$\textit{Aggregate } \pi = \textit{average } \pi + \textit{alignment(}\pi \textit{ , share activity)}$$

- Evidence points to significance of *reallocation* term.
  1. Technical issues: measurement of firm performance (π).
  2. Substantive issues: identifying mechanisms: study on US steel.

Mechanism underlying covariance term

- Ultimately the mechanism is relevant for policy and less so the actual number coming out of any study.
- We therefore need to study what drives the turning on and off of the covariance term.
- This brings us back to the measurement issues, since the identification of the mechanism crucially depends on the components of TFPR
- Let's not forget that even if covariance is 30 percent, remaining 70 percent from industry-wide effects. Latter brings back role of entry, R&D, market access, within-firm efficiency and performance effects!

Mechanisms

- Components of firm performance are: efficiency (i.e. loosely productivity), pricing, input market position and fixed cost activities.

  1. market power: both through synergies and higher margins,
  2. heterogeneity: technology and demand,
  3. dynamics: volatility and adjustment,
  4. ownership: M&A activity.

Identifying mechanisms

- We know very little about the actual process
- In fact the most has come from studies in the context of trade liberalization: tariff cuts induce a reallocation.
- Recent work on technology (US steel) and ownership (Japanese cotton)
- Obvious candidates that are policy variant: distortions preventing free flow of either output or inputs: labor markets, market integration increasing competition.
- Covariance is closely related to Shumpeter's creative destruction process, and requires long panels to trace it.
- **Challenge for policy** If action is in reallocation, micro data and measurement become even more crucial.

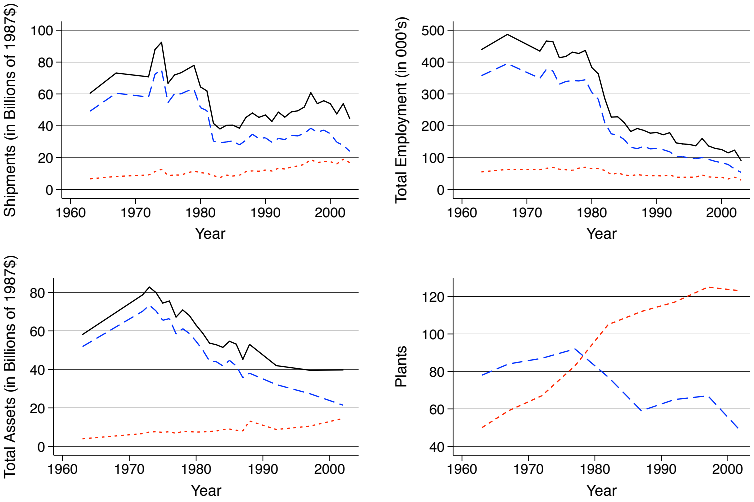
US Steel industry (Collard-Wexler and De Loecker 2015)

Changes computed between 1972-2002.

Sector	Δ TFP	Δ Shipments	Δ Labor
Steel Sector	28%	-35%	-80%
Mean Sector	7%	60%	-5%
Median Sector	3%	61%	-1%

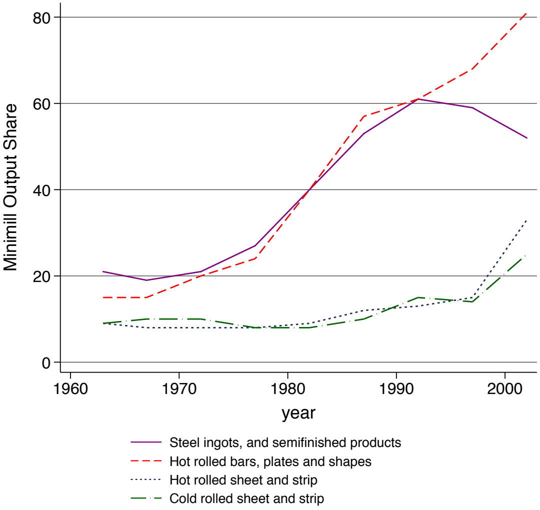
Source: NBER-CES Dataset for SIC Code 3312.

US steel: history



- Standard policy variable (suspects) do not explain above average performance of the sector:
  1. Trade: import competition change at the average,
  2. Unions: Coverage change at the average,
  3. Location: robust,
  4. Firm ownership/management: even more pronounced

Importance of digging in: new technology



Last piece: competition

Component	All	Minimill	Integrated
Total Change	23	10	24
	(4)	(5)	(4)
Plant Improvement (%)	34	107	33
Reallocation (%)	47	-7	48
Net Entry (%)	19	0	19
Total Reallocation (%)	66	-7	67

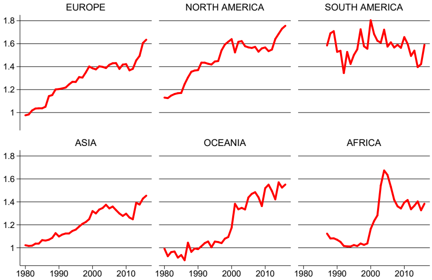
2/3 of growth left to be explained: large part due increased competition selecting high productivity incumbent technology plants active in high quality steel products.

Macro approach

- Crucial aspect: general equilibrium (labor demand, across-markets, welfare), e.g. De Loecker, Eeckhout and Mongey.
- Quantify impact market power using model of entry w/ heterog. firms and endogenous market structure, rising fixed costs fits moments in product and labor markets
- Findings: reallocation towards more productive firms while restricting output: in net welfare loss.
- Non-substitutable labor benefits from process by rent-sharing through matching process (pos as. Matching).

Any conclusions for Competition policy?

- Popular view anti-trust is to blame, but:



- Not likely to explain secular trends across many regions in the word, with firms present in many markets

Competition policy going forward

- Rather: **Technology** X **Globalization** is perfect storm for Sutton-like forces to lead to concentrated product markets with forward looking implications for competition policy:
  1. entry margins,
  2. merger activity,
  3. labor markets,
  4. innovation concentrated (less in gov run programs),
  5. lobby activity (think big Pharma in the US).

Looking ahead

- Shocks (demand and/or supply) have very different implications: recent inflation-market power debate.
- Market structure has been shaped over this period, and competition inducing policies (incl. anti-trust) now has *even bigger* role to play going forward.
- Two elephants in the room: international tax shopping and government institutionalized market power through regulation and constraints (muting entry margins).
- Restore theory-of-second-best: market power interacts with other frictions (taxes, regulation, permits, trade policy, etc.), especially relevant in Latin-America.